

29 September 2022

Energy Policy WA
Locked Bag 11
Cloisters Square, WA 6850
Sent by email to: energymarkets@dmirs.wa.gov.au

Dear Sir or Madam

Reserve Capacity Mechanism Review – Stage 1 Consultation Paper

Change Energy welcomes the opportunity to comment on the Reserve Capacity Mechanism (RCM) review. Over the past two decades the RCM has played a vital role in ensuring reliability in the South West Interconnected System (SWIS), and has provided an opportunity for generators to earn a reasonable return on their assets. We believe this role must continue over the coming decades, and more importantly provide a strong incentive for efficient investment and economic retirements of generators over the long term. We therefore support Energy Policy WA's (EPWA) initiative to review the RCM and make certain it remains fit for purpose in WA's changing energy landscape.

Having reviewed EPWA's suite of conceptual design proposals, we do not consider the RCM requires wholesale changes from its current format. For the most part we support the retention of existing RCM components, such as the existing peak capacity product, the current two limbs of the Planning Criterion, and the existing target Expected Unserved Energy (EUE) percentage. In general, we believe the RCM has operated effectively, and caution against sweeping changes that may make the mechanism overly-conservative, or that may unnecessarily penalise carbon-emitting capacity.

For example, we have concerns with the proposed changes to clause 4.5.9(a)(ii) of the Wholesale Electricity Market (WEM) Rules, which will result in the reserve margin being based on the largest contingency on the power system rather than the largest generating unit. We highlight that the purpose of the capacity mechanism is to ensure sufficient generation capacity is available, and not to account for network contingencies.

With regard to the Benchmark Reserve Capacity Price (BRCP), while we support EPWA's revised approach to defining the BRCP, we do not support State Government's proposal to penalise carbon emitting capacity through the RCM. While Change Energy supports decarbonisation, it remains important to have sufficient capacity that can 'firm-up' the inherent intermittency of renewable generation. We highlight it is unlikely batteries will be a commercial solution, in particular at the scale required in the SWIS to replace coal and gas. Moreover, any change of the benchmark technology to batteries in the near future would severely disadvantage peaking generation – the very 'flexible' generation we are seeking to retain, and increase. Should the proposed penalty regime for carbon-emitting technologies is introduced, the RCM will need to be thoroughly reviewed again to ensure it is fit-for-purpose.

We support some modifications to the RCM, for example the introduction of a new flexible capacity product, changes to Capability Classes, and the introduction of the proposed third limb of the Planning Criterion. We also support introduction of a new capacity product into the RCM (alongside the existing peak capacity product) to

incentivise flexible capacity that can start, ramp up and down, and stop quickly. We consider each of these proposed changes should provide for sufficient flexible capacity in the SWIS, in turn allowing us to make more use of our low cost, low emissions renewable generation sources. Importantly, careful consideration needs to be given as to how retailers and customers will be able to both recover and manage these costs. The next stages of the review including potential changes to IRCR will be very important to retailers like Change Energy.

We appreciate the rapidly changing environment and shift to zero emissions have warranted a thorough review of the RCM and should result in improved price signals for investment. However, perhaps a more important factor to attract the required investment in the SWIS are robust and stable policy settings. We consider the proposed changes if left in place over the long term should, over time, encourage an adequate mix of generation to support the energy transition.

Thank you for the opportunity to comment on the RCM Stage 1 Consultation Paper. A summary of our response to each of EWPA's 17 conceptual design proposals is provided in Appendix A.

If you have any questions, or would like to arrange a meeting to discuss any aspect of this submission, please contact me on 0401 903 210 or at Geoff.Gaston@changeenergy.com.au.

Yours Sincerely,

A handwritten signature in black ink, appearing to read 'G. Gaston', written in a cursive style.

Geoff Gaston
CEO
Change Energy

Appendix A

EPWA conceptual design proposal	Change Energy's position
<p>Conceptual Design Proposal 1 (retain the current approach): Retain the existing 'peak capacity' product to provide an explicit price signal several years ahead of the need for new capacity to meet peak demand and overall energy demand.</p> <p>Consultation Question: (1) Do stakeholders support the retention of the existing peak capacity product?</p>	<p>Change Energy supports this proposal.</p>
<p>Conceptual Design Proposal 2 (retain the current approach):</p> <ul style="list-style-type: none"> The RCM will not include a specific product to manage minimum demand. The RCM design and the capacity certification process will seek to avoid incentives for new facilities that could make minimum demand more difficult to manage, such as facilities with high minimum stable generation, and/or long start-up, minimum running or minimum restart times. <p>Consultation Question: (2) Do stakeholders support not including a product in the RCM to manage minimum demand?</p>	<p>Change Energy supports this proposal.</p>
<p>Conceptual Design Proposal 3: Introduce a new capacity product into the RCM (alongside the existing peak capacity product) to incentivise flexible capacity that can start, ramp up and down, and stop quickly.</p> <p>Consultation Questions: (3) Do stakeholders support inserting a new flexible capacity product in the design of the RCM?</p>	<p>Change Energy supports this proposal as it should encourage the introduction of 'firming' generation to support intermittent renewables. However, consideration needs to be given as to how retailers will be able to manage these costs in a way that ensures they will be able to be recovered from customers.</p>
<p>Conceptual Design Proposal 4: It is not proposed that the Planning Criterion includes reference to volatility in the output of intermittent facilities. Volatility in operational load and intermittent generation over short timeframes can be managed through ESS and re-dispatch. The addition of the flexible capacity product, proposed under the Conceptual Design Proposal 3, is expected to provide adequate capacity that is capable of providing these services.</p>	<p>In general, Change Energy supports this proposal. However, we consider there should be mechanisms to attribute the costs associated with intermittent generation volatility back to those generators. This is consistent with the causer-pays basis that many other costs in the</p>

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<p>Consultation Question: (4) Do stakeholders support not amending the Planning Criterion to include consideration of the volatility of intermittent generators?</p>	<p>WEM now use to allocate costs. We consider this will serve as an incentive to improve the accuracy of intermittent forecasts and/or reduce generation volatility directly.</p>
<p>Conceptual Design Proposal 5: The two current limbs of Planning Criterion will be retained, requiring sufficient capacity to:</p> <ul style="list-style-type: none"> • meet the 10% POE demand, and • achieve EUE no greater than a specified percentage of expected demand. <p>Consultation Question: (5) Do stakeholders support retention of the current two limbs of the Planning Criterion?</p>	<p>Change Energy generally supports this approach. This was reviewed a number of years ago the results seemed reasonable. However, the actual outcome has resulted in the level of excess capacity (effective reserve margin) being greater than 40% and in some years 60%. This is not necessarily in the best interests of customers who bear these costs.</p> <p>Change Energy would like to see a review of previous years forecasts compared to actuals to see if there are any areas of improvement.</p>
<p>Conceptual Design Proposal 6: Amend the reserve margin so that:</p> <ul style="list-style-type: none"> • sub-clause 4.5.9(a)(i) uses the (AEMO determined) proportion of the generation fleet expected to be unavailable at system peak due to forced outage, rather than a hardcoded percentage; and • sub-clause 4.5.9(a)(ii) refers to the largest contingency on the power system, rather than the largest generating unit. <p>Introduce the proposed amendment to clause 4.5.9(a)(ii) to change the determination of the largest contingency for the calculation of the reserve margin, in time for the 2023 Reserve Capacity Cycle (for the Capacity Year starting on 1 October 2025).</p> <p>Consultation Questions: (6)(a) Do stakeholders support amending the reserve margin as indicated in Conceptual Design Proposal 6? (6)(b) Do stakeholders have any concerns about the proposed amendments to clause 4.5.9(a)(ii)? (6)(c) Do stakeholders support commencing the proposed amendments to clause 4.5.9(a)(ii) for the 2023 Reserve Capacity Cycle?</p>	<p>Change Energy has concerns with the changes to clause 4.5.9(a)(ii) of the WEM Rules. The purpose of the RCM is to ensure sufficient generation capacity is available, not that network contingencies are accounted for.</p> <p>Change Energy believes that clause 4.5.9(a)(ii) needs further analysis to determine the additional cost burden that places on customers prior to any decision, and therefore should not be introduced for the 2023 Reserve Capacity Cycle.</p>

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<p>Conceptual Design Proposal 7: The target EUE percentage in the second limb of the Planning Criterion will remain at 0.002% of annual energy consumption.</p> <p>Consultation Question: (7) Do stakeholders support retaining the target EUE percentage at 0.002?</p>	<p>Change Energy supports this proposal.</p>
<p>Conceptual design proposal 8: The Planning Criterion will include a third limb requiring AEMO to procure flexible capacity to meet the size of the steepest operational ramp expected on any day in the capacity year from either the 10% or 50% POE load forecasts.</p> <p>Consultation Question: (8) Do stakeholders support the proposed third limb of the Planning Criterion to require AEMO to procure flexible capacity? If so, is the proposed criterion appropriate?</p>	<p>Change Energy supports this proposal.</p>
<p>Conceptual Design Proposal 9:</p> <ul style="list-style-type: none"> The ERA will remain responsible for setting the detail of the method used to calculate the BRCP. The WEM Rules will provide guidance for the ERA on the factors to be considered in setting the BRCP methodology. <p>Consultation Questions: (9)(a) Do stakeholders support retaining the ERA as the agency that is to set the BRCP? (9)(b) Do stakeholders support providing guidance to the ERA in the WEM Rules on the</p>	<p>Change Energy supports this proposal.</p>
<p>Conceptual Design Proposal 10:</p> <ul style="list-style-type: none"> The WEM Rules will define the BRCP as the per MW capital cost of the new entrant technology with the lowest expected capital cost amortised over the expected life of the facility. A BRCP is to be calculated for each of the peak capacity product and the flexible capacity product, and the BRCP methodology must differentiate between the two, taking into account any differences between the reference technologies used for each product, where appropriate. The ERA review of the BRCP methodology (under clause 4.16.9 of the WEM Rules) must consider the appropriate reference technology, the design life of the relevant facility, and identify any cost components that differ between the technology providing the peak capacity product only and that providing the peak capacity plus the flexible capacity product. 	<p>Change Energy generally supports these approaches but does not support the current State Government proposal to penalise carbon emitting capacity. If a penalty regime of this nature is introduced the BRCP will need to be thoroughly reviewed to ensure it is fit-for-purpose. We expect it will need to be completely revised.</p> <p>Change Energy has concerns that the benchmark technology will be changed to battery energy</p>

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<ul style="list-style-type: none"> The ERA can review the BRCP methodology more frequently than every five years, if it considers that the reference technology has changed significantly, and must consult with stakeholders each time it does. <p>Consultation Questions: (10)(a) Do stakeholders support the proposed approach to the BRCP? (10)(b) Do stakeholders support the calculation of separate BRCPs for the peak and flexible capacity products? (10)(c) Do stakeholders support the proposed factors for the ERA to consider in reviewing the BRCPs?</p>	<p>storage systems. This, together with the proposed carbon emitting penalty will significantly disadvantage existing peaking generation which are critical to transition to a renewable future.</p>
<p>Conceptual Design Proposal 11:</p> <ul style="list-style-type: none"> Where the RCM reference technology has the highest short-run costs in the fleet, the BRCP methodology can use the simpler gross CONE approach, as this will be the same as the net CONE. Where the RCM reference technology does not have the highest short-run costs in the fleet, the use of net CONE approach would need to be considered together with all other factors that may influence investment decisions. The BRCP will be set based on a facility located in the least congested part of the network. If there is no uncongested network location to accommodate the size of the lowest fixed cost technology, the NAQ regime may affect the choice of reference technology. This location will be considered as part of the ERA's regular review of the BRCP methodology. <p>Consultation Question: (11) Do stakeholders support the proposed consideration of gross CONE and net CONE for determining the BRCP, as indicated in Conceptual Design Proposal 11?</p>	<p>Change Energy supports this proposal. However, as stated previously Change Energy does not support any change in reference technology to batteries any time in the near future.</p>
<p>Conceptual Design Proposal 12:</p> <ul style="list-style-type: none"> The administered RCM price curve for the flexible capacity product will be the same as the one used for the peak capacity product, as defined in WEM Rule 4.29.1(b)(iv). The capacity price paid to a facility providing flexible capacity will never be lower than the peak capacity price. Proposed facilities will have the option to seek a five-year fixed price for flexible capacity, on the same basis as is currently available for peak capacity. A facility must opt for a fixed price for both products, it cannot select fixed price for one product and floating price for the other. <p>Consultation Questions: (12)(a) Do stakeholders support using the same price curve for the peak and flexible capacity products?</p>	<p>Change Energy supports this proposal.</p>

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<p>(12)(b) Do stakeholders support the proposed pricing arrangements for the flexible capacity product? (12)(c) Do stakeholders support a 5-year fixed price option for proposed flexible capacity facilities?</p>	
<p>Conceptual Design Proposal 13:</p> <ul style="list-style-type: none"> • The current Availability Classes will be removed from the WEM Rules. • The RCM will allocate facilities to one of three Capability Classes. • CRC allocation methodologies will be amended to consider hybrid facilities as a single entity. • Capability Class 1 facilities will be required to demonstrate fuel arrangements that enable them to run for 14-hours, with this requirement practical implementation to be considered in stage 2 of the review. • Capability Class 1 facilities will be required to be available during all dispatch intervals, unless on an outage. <p>The proposed design for Capability Class 2 is outlined in design Proposal 14 and the design for ability Class 3 will be developed in stage 2 of the RCM Review.</p> <p>Consultation Questions:</p> <p>(13)(a) Do stakeholders support replacement of the current Availability Classes with Capability Classes? (13)(b) Do stakeholders support the conceptual design proposal for the Capability Classes? (13)(c) Do stakeholders support retaining the 14-hour fuel requirement, with its practical implementation to be considered in stage</p>	<p>Change Energy supports this proposal generally. However, it does not necessarily support retaining the 14-hour fuel requirement.</p>
<p>High level design proposal 14:</p> <ul style="list-style-type: none"> • AEMO will determine an availability duration requirement for new Capability Class 2 facilities, based on the capacity of the existing and committed fleet, and publish it in the ESOO, including forecasts for subsequent years. • Capability Class 2 facilities will receive CRC equal to their maximum instantaneous output pro-rated by the number of hours they can sustain this output divided by the availability duration requirement. • Proponents can request a five-year fixed availability duration requirement for a Class 2 facility but this request will only be accepted if the facility is needed to meet the reserve capacity target. <p>Consultation Questions:</p>	<p>Change Energy supports 14(a) with the concerns raised above regarding clause 4.5.9(a)(ii). Change Energy does not support 14(c), any long-term commitments made by AEMO should be consistent across Capability Classes.</p>

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<p>(14)(a) Do stakeholders support the proposal for AEMO to calculate the availability duration requirement for each capacity cycle?</p> <p>(14)(b) Do stakeholders support prorating the CRC for Capability Class 2 facilities in proportion to the availability duration requirement?</p> <p>(14)(c) Do stakeholders support allowing proponents to request a 5-year fixed availability requirement?</p>	
<p>Conceptual Design Proposal 15:</p> <ul style="list-style-type: none"> CRC allocation will remain on an ICAP basis, with refunds payable for any forced outage. The reserve margin in the first limb of the Planning Criterion will be set at the greater of the fleet-wide EFORD and the largest contingency expected at system peak, with AEMO assessing both each year. Where, over a three-year period, a facility has an EFORD higher than 10%, AEMO will be required to reduce its CRC by the EFORD. The method for calculating EFORD will also account for forced outages reported at times the relevant facility had not been called to run. A facility whose CRC has been reduced under clause 4.11.1(h) will be excluded from the calculation of fleet outage rate for the purposes of setting the planning criterion reserve margin. <p>Consultation Questions:</p> <p>(15)(a) Do stakeholders support continuing to allocate CRC on an ICAP basis?</p> <p>(15)(b) Do stakeholders support the conceptual design proposal for treatment of outages?</p>	<p>Change Energy supports this proposal. However, per our previous comments, network contingencies should not be considered when determining the reserve margin.</p>
<p>Conceptual Design Proposal 16:</p> <p>To ensure independent estimates of intermittent generator output, AEMO will procure expert reports to derive estimates of performance on behalf of participants.</p> <p>Consultation Question:</p> <p>(16) Do stakeholders support requiring AEMO to procure expert reports on behalf of participants?</p>	<p>Change Energy supports this proposal, but considers the costs should be paid for by the participants affected consistent with causer-pays principles.</p>
<p>Conceptual Design Proposal 17:</p> <ul style="list-style-type: none"> The methodology to assign CRC to facilities in each of the different Capability Classes will differ by class as follows: <ul style="list-style-type: none"> Class 1: Expected output at projected 10% POE peak ambient temperature; 	<p>Change Energy considers the methodology to assign CRC to facilities should be considered as a whole. On this basis, we strongly recommend decisions on Class 1 and 2 methodologies should</p>

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<ul style="list-style-type: none"> • Class 2: Expected output at projected 10% POE peak ambient temperature, adjusted for required availability duration; and • Class 3: To be confirmed in stage two of the RCM review. <p>Consultation Questions:</p> <p>(17)(a) Do stakeholders support using a different methodology to assign CRC to facilities in each Capability Class.</p> <p>(17)(b) Do stakeholders support the proposed methodology to assign CRC to facilities in Capability Class 1?</p> <p>(17)(c) Do stakeholders support the proposed methodology to assign CRC to facilities in Capability Class 2?</p> <p>(17)(d) Do stakeholders prefer one of the three identified methodologies for assigning CRC to facilities in Capability Class 3 and what are the reasons for the preference?</p>	<p>be delayed and considered holistically with Class 3 and the IRCR to ensure it works as a package.</p>